#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### CORRECTED VERSION

## (19) World Intellectual Property Organization International Bureau



### 

(43) International Publication Date 11 November 1999 (11.11.1999)

**PCT** 

# (10) International Publication Number WO 99/057280 A3

- (51) International Patent Classification<sup>6</sup>: C12N 15/31, C07K 14/22, 16/12, C12Q 1/68, A61K 39/095, G01N 33/50
- (21) International Application Number: PCT/US99/09346
- (22) International Filing Date: 30 April 1999 (30.04.1999)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/083,758	1 May 1998 (01.05.1998)	US
60/094,869	31 July 1998 (31.07.1998)	US
60/098,994	2 September 1998 (02.09.1998)	US
60/099,062	2 September 1998 (02.09.1998)	US
60/103,749	9 October 1998 (09.10.1998)	US
60/103,794	9 October 1998 (09.10.1998)	US
60/103,796	9 October 1998 (09.10.1998)	US
60/121,528	25 February 1999 (25.02.1999)	US

- (71) Applicants (for all designated States except US): CHI-RON CORPORATION [US/US]; 4560 Horton Street, Emeryville, CA 94608 (US). THE INSTITUTE FOR GENOMIC RESEARCH [US/US]; 9212 Medical Center Drive, Rockville, MD 20850 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): FRASER, Claire [US/US]; The Institute for Genomic Research, 9212 Medical Center Drive, Rockville, MD 20850 (US), GA-LEOTTI, Cesira [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100 Siena (IT). GRANDI, Guido [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100 Siena (IT). HICKEY, Erin [US/US]; The Institute for Genomic Research, 9212 Medical Center Drive, Rockville, MD 20850 (US). MASIGNANI, Vega [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100 Siena (IT). MORA, Marirosa [IT/IT]; Chiron S.p.A.; Via Fiorentina, 1, I-53100 Siena (IT). PETERSEN, Jeremy [US/US]; The Institute for Genomic Research, 9212 Medical Center Drive, Rockville, MD 20850 (US). PIZZA, Mariagratia [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100 Siena (IT). RAPPUOLI, Rino [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100

Siena (IT). RATTI, Giulio [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100 Siena (IT). SCALATO, Enzo [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100 Siena (IT). SCARSELLI, Maria [IT/IT]; Chiron S.p.A., Via Fiorentina, 1, I-53100 Siena (IT). TETTELIN, Herve [US/US]; The Institute for Genomic Research, 9212 Medical Center Drive, Rockville, MD 20850 (US). VENTER, J., Craig [US/US]; The Institute for Genomic Research, 9212 Medical Center Drive, Rockville, MD 20850 (US).

- (74) Agent: HARBIN, Alisa, A., Chiron Corporation, Intellectual Property R440, P.O. Box 8097, Emeryville, CA 94662-8097 (US).
- (81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- (88) Date of publication of the international search report: 24 August 2000
- (48) Date of publication of this corrected version:

29 August 2002

(15) Information about Correction:

see PCT Gazette No. 35/2002 of 29 August 2002, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NEISSERIA MENINGITIDIS ANTIGENS AND COMPOSITIONS

(57) Abstract: The invention provides proteins from Neisseria meningitidis, including the amino acid sequences and the corresponding nucleotide sequences. The proteins are predicted to be useful antigens for vaccines and/or diagnostics.



